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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,249	09/17/2003	Joseph E. Musil	03M1630	3332
24234	7590	07/12/2005	EXAMINER	
SIMMONS, PERRINE, ALBRIGHT & ELLWOOD, P.L.C. THIRD FLOOR TOWER PLACE 22 SOUTH LINN STREET IOWA CITY, IA 52240			ADDIE, RAYMOND W	
			ART UNIT	PAPER NUMBER
			3671	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/605,249	MUSIL ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Raymond W. Addie	3671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2005.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/17/2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/25/2005</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "chassis, said hopper said engine...being free from attachment to any...radially and vertically adjustable material mover, of a type...when said attachment...is not coupled to any of said plurality of detachable road paving tool attachments" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

2. Claim 1 is objected to because of the following informalities: In. 21, the word (angle) is misspelled. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Reed # 5,553,969.

Reed discloses a road paving tractor (10) comprising:

A chassis (12) having a front (16) and rear end (14).

A hopper (74) disposed on the front end of said chassis.

A driver station (36), engine (26) and drive train (20, 24) configured to propel the road paving tractor, and a hydraulic system for empowering hydraulic lift cylinders.

Conveyor means (80, 132) for moving paving material from said hopper toward said

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rear end, such that said paving material is not dribbled below said tractor as material convey loops underneath said tractor.

A paving screed (136) attached to said attachment coupling means (138, 140).

An attachment coupling means (140, 138) coupled to said chassis and toward said rear end (14), wherein said attachment coupling means is configured to have an adjustable location, with respect to said chassis. See Fig. 1; Col. 5, ln. 65-col. 6, ln. 55.

Further, wherein said attachment coupling means (140, 138) being configured to temporarily receive one of a plurality of detachable road paving tool attachments.

Said chassis, hopper, engine driver station and said means for moving being free from attachment to any paving screed, road widening strike-off blade, and radially and vertically adjustable material mover, of a type configured to move paving material at an upward angle away from said rear end, when said attachment coupling means is not coupled to any of said plurality of detachable road paving tool attachments.

In regards to claim 3, although Reed does not disclose what types of detachable road paving tool attachments are configured to be mated with the attachment coupling means, it is inherent from the linkage (144, and pins in link 138) the attachment (136) can be connected and disconnected from the attachment coupling means (138, 140), without the a need for welding to occur during an attachment process.

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***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-6, 10-12, 19, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reed # 5,553,969 in view of Olson # 6,481,925 B1.

Reed discloses a road paving tractor having a detachable tool assembly (136) but does not disclose what other types of tool can be temporarily attached to said tractor.

However, Olson teaches it is known to provide road paving tractors with detachable work implements, such as screed assemblies, hot mix asphalt transfer tool attachments and road widening implements. See Figs. 3-5.

Olson explicitly discloses the advantages of providing an attachment coupling means (32, 36) in order to increase the utility of a single prime mover (10), by reducing the number of individual vehicles and operators necessary to utilize each of the now detachable road paving implements. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the paving machine of Reed, with a plurality of detachable, work implements, as taught by Olson, in order to increase the utility of a single prime mover (10), by reducing the number of individual vehicles and operators necessary to utilize each of the now detachable road paving implements, as explicitly taught by Olson. See Figs. 1-5; Col. 2, ln. 22-col. 4, ln. 17. Emphasis on Col. 3, ln. 59-col. 4, ln. 17.

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In regards to Claims 11-14 Reed discloses a method of deploying road paving machine comprising the steps of:

Providing a paving tractor with a 1<sup>st</sup> detachable road paving tool attachment (136) operatively coupled thereto at a 1<sup>st</sup> connection point that is on a vertically adjustable pull arm (140).

What Reed does not disclose is a method of replacing the detachable tool attachment (136), with other, different types of detachable work implements.

However, Olson teaches a known method of replacing detachable work implements on a paving tractor, comprising the steps of:

Replacing said 1<sup>st</sup> tool attachment (100) with any of a plurality of second detachable road paving tool attachments (70 or 80) without welding or cutting metal at said 1<sup>st</sup> connection point.

Where said 1<sup>st</sup> detachable road paving tool attachment (100) is configured to perform a substantially different task than said 2<sup>nd</sup> tool attachments.

Wherein said paving tractor (10) is a self-propelled vehicle configured to be driven by a driver located on and at a rear end (22) of the paving tractor (10) said paving tractor further comprising a hopper (24) disposed forward of said rear end (22), and means (40) for conveying paving material from said hopper to said rear end. See col. 3, ln. 59- col. 4, ln. 17. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the paving machine of Reed, with a plurality of detachable, work implements, as taught by Olson, in order to increase the utility of a



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single prime mover (10), by reducing the number of individual vehicles and operators necessary to utilize each of the now detachable road paving implements, as explicitly taught by Olson.

Although Olson does not disclose lowering the attachments (34) onto a support surface, which is not the ground; it would be obvious to one of ordinary skill at the time the attachment(s) were being disconnected from the tractor (10); to place the attachment, such as (100) being disconnected, onto a support surface, other than the ground, via vertically adjustable pull arms, in order to increase safety and minimize change-out time of each attachment. See Figs. 1-5; Col. 2, ln. 22-col. 4, ln. 17. Emphasis on Col. 3, ln. 59-col. 4, ln. 17.

5. Claims 1-6, 10-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Macku et al. # 6,071,040 in view of Olson # 6,481,925 B1.

Macku et al. discloses a method of deploying a road paving machine (1) comprising the steps of:

Providing a paving tractor (3) with a 1<sup>st</sup> detachable road paving tool (11) operatively coupled thereto at a 1<sup>st</sup> connection point such as on tow arms, see Fig. 1.

Wherein said paving tractor (3) is a self-propelled vehicle configured to be driven by a driver located on and at a rear end of said paving tractor. Said paving tractor further comprising a hopper (7) disposed forward of said rear end and means (5) for conveying paving material from said hopper to said rear end. See col. 3, ln. 56-col. 4, ln. 52.



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What Macku et al. does not disclose is replacing the 1<sup>st</sup> detachable paving tool attachment (11) with a 2<sup>nd</sup> and different type of paving tool attachment.

However, Olson discloses it is desirable to provide a paving tractor with a plurality of interchangeable road paving implements without welding, or cutting metal at the connection point. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the method of deploying a paving machine of Macku et al., with the step of interchanging detachable road paving implements from a paving tractor, as taught by Olson, in order to maximize the utility of the paving machine.

In regards to Claims 12-14 Macku et al. discloses the use of paving machine, having a paving screed (11) detachably mounted to a pair of vertically adjustable tow arms (see fig. 1), which are powered by an engine mounted on the paving machine (1) but does not disclose replacing the screed with a different paving tool. However, Olson teaches a method for attaching/detaching the various detachable paving tool attachments (34) to the tractor (10), to accommodate specific road paving tasks. Although Olson does not disclose lowering the attachments (34) onto a support surface, which is not the ground; it would be obvious to one of ordinary skill at the time the attachment(s) were being disconnected from the tractor (10); to place the attachment, such as (100) being disconnected, onto a support surface, other than the ground, via vertically adjustable pull arms, in order to increase safety and minimize change-out time of each attachment.

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Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the method of deploying a paving machine of Macku et al., with the steps of disconnecting a 1<sup>st</sup> paving tool and attaching a 2<sup>nd</sup> paving tool to the paving tractor, as taught by Olson in order to maximize the utility of the paving tractor.

In regards to Claim 15 Macku et al. discloses a road paving system comprising:

A road paving tractor (3) further comprising:

A chassis having a front and rear end.

A hopper (7) for receiving and containing road paving material, and is disposed at and coupled to said front end.

A plurality of paving material moving augers disposed at least in part, in said hopper, for moving paving material from said hopper toward said rear end.

An engine, coupled to said chassis for providing motive force to propel said road paving tractor.

Vertically adjustable arms coupled to said chassis for providing movement of a connection point at a rear end thereof.

A hydraulic system, coupled to said chassis and receiving power from said engine, said hydraulic system for vertical adjustment of said vertically adjustable arm.

See Fig. 1.

At least one detachable road paving tool attachment (11) configured to mate with said connection point of said adjustable arm. Such that manipulation of said vertically adjustable arm, via said hydraulic system, results in at least a vertical displacement of the at least one detachable road paving tool attachment.

Wherein said at least one detachable paving tool attachment further configured when coupled to said vertically adjustable arm to cause road paving material in contact therewith, to be relocated in a predetermined manner.

Further wherein said at least one detachable paving tool attachment is operatively attachable and detachable to said connection point without either welding and cutting any structural metal components of the paving tractor or the at least one detachable paving tool. What Macku et al. does not disclose is the use of a plurality of detachable paving tools. However, Olson teaches it is desirable to increase the utility of a single prime mover (10), by reducing the number of individual vehicles and operators necessary to utilize each of the now detachable road paving implements, such as a paving screed attachment (34) see Fig. 5; a hot mix asphalt transfer tool attachment (80) comprising a elevating means (86), in the form of a vertically swinging slat conveyor (86), see Fig. 4; and a road widening attachment (100) comprising a road widener strike-off blade (106), a road widener end gate (unnumbered, see lower section of Fig. 5), end-gate angle control link, and a road widener strike-off blade angle control link (108).

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Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the paving machine of Macku et al. with a plurality of detachable paving tool attachments, as taught by Olson, in order to reduce the number of prime movers and operators necessary to perform individual road paving tasks.

See Olson cols. 3-4.

In regards to Claims 19, 20 Macku et al. discloses a paving tractor (3) having a driver seat and hydraulic controls, see Figs. 1, 4, 6, 7, having a detachable paving screed (11) attached thereto, via tow arms, but does not disclose providing a detachable road widening attachment. However, However, Olson teaches it is desirable to increase the utility of a single prime mover (10), by reducing the number of individual vehicles and operators necessary to utilize each of the now detachable road paving implements, such as a paving screed attachment (34/70) see Fig. 5; and a road widening attachment (100) comprising a road widener strike-off blade (106), a road widener end gate (unnumbered, see lower section of Fig. 5), end-gate angle control link, and a road widener strike-off blade angle control link (108).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the paving machine of Macku et al. with a plurality of detachable paving tool attachments, as taught by Olson, in order to reduce the number of prime movers and operators necessary to perform individual road paving tasks.

See Olson cols. 3-4.

6. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olson # 6,481,925 B1 in view of Brock et al. # 5,035,534.

Olson discloses it is desirable to provide a paving machine (10) with a plurality of detachable paving tool attachments, to include screeds, road wideners and hot mix transfer attachment (80). What Olson does not disclose is whether the hot mix transfer attachment (80) can swing horizontally as well as vertically. However, Brock et al. teaches it is known to provide hot mix asphalt transfer devices (10) with at least one vertically and horizontally swinging slat conveyors (65), such that the discharge end of conveyor (65) may be swung beyond the lateral extremities of the transfer device (10). Therefore, it would have been obvious to provide the mix transfer attachment of Olson with a horizontally and vertically swing able slat type conveyor, as taught by Brock et al., in order to place the discharge end of the conveyor at a desired location relative to the paving tractor. See Figs. 1, 2; Col. 5, Ins. 1-12.

#### ***Response to Amendment***

7. Applicant's amendments to claims 1, 11, 15, 16 have overcome the 35 U.S.C 112 rejections of the Last Office Action, which have been withdrawn.

#### ***Response to Arguments***

8. Applicant's arguments, see 1-4, filed 4/25/05, with respect to the 35 U.S.C. 112 rejections of the Last Office Action have been fully considered and are acknowledged.

9. Applicant's arguments with respect to claims 1-6, 10-15 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 4/25/05, with respect to the combination of Macku in view of Olson have been fully considered but they are not persuasive.

Applicant argues "Neither Macku or Olson teaches the notion of an adjustable location of the connection point, among other things as well. When the entire claim is considered, it becomes clear that the 103 rejection is not proper and should be rescinded".

However, the Examiner does not concur.

Fig. 1 of Macku et al. clearly illustrates the tow bar is attached to the chassis via a hydraulic cylinder, which raises and lowers the tow bar assembly.

Therefore, the argument is not persuasive and the rejection is maintained.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Friebel et al. # 4,470,783, Leone et al. #6,582,152 B2, Musil # 4,702,642, Pont Feixes # 6,860,676 B2, Smith # 4,955,754, Nolan # 6,0656,474 all disclose detachable paving machine attachment assemblies.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond W. Addie whose telephone number is 571 272-6986. The examiner can normally be reached on 6AM-2:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 571 272-6998. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Raymond Addie**  
**Patent Examiner**  
**Group 3600**

7/10/05